UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 HAWTHORNE STREET
SAN FRANCISCO, CA 94105

September 15, 1991
Mr. George Warnock, President
Todilto Exploration and Development Corporation
311 Washington SE
Albuquerque, New Mexico 87108

RE: Bluewater Uranium Mine Sites, Prewitt, New Mexico

The United States Environmental Protection Agency ("EPA") has received your letter dated July 30, 1991 in response to EPA's General Notice letter issued to you on July 15, 1991. As stated within the General Notice letter, EPA has reason to believe that your company may be a Potentially Responsible Party (PRP) with regard to a portion of the Bluewater Uranium Mine Sites occupying Section 19, Township 13N, Range 10W and Section 13, Township 13N, Range 11W of the USGS Bluewater Quadrangle. The General Notice letter formal notified your company of its potential liability pursuant to Section 107(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. Section 9604, as amended (CERCLA).

EPA has determined that present conditions on both parcels of land pose an immanent and substantial endangerment to the public health or welfare or the environment because of the releases and/or threatened releases of hazardous substances as a result of improper closures of abandoned or nonoperational uranium mine sites.

In regard to your reply:

(1) EPA has obtained information that Todilto Exploration and Development Corporation actively participated in the mining operations on Section 13 and 19 which resulted in the disposal of hazardous substances (mine waste and debris) on the property. Therefore, Todilto Exploration and Development Corporation may be considered to be a Potential Responsible Party under CERCLA.

(2) EPA disagrees with your statement that "there is no danger to the public health on either section 19 or 13." EPA, along with the Agency for Toxic Substances and Disease Registry (ATSDR) concur that the mine sites pose a significant health threat to the neighboring population and environment. Background gamma radiation readings obtained by EPA ranged from 11 microroentgens per hour (uR/hr) to 15 uR/hr at waist level within

the immediate vicinity of the Site. The net waist level (background subtracted) radiation levels observed by EPA within the affected mined areas ranged from 20 uR/hr to over 750 uR/hr. In addition to elevated gamma radiation emissions, elevated concentrations of radium (Ra-226/228) and uranium isotopes (U-223/234/235/238) were detected in the surface soils within both Section 19 and Section 13. The maximum levels detected for radioisotopes in surface soils at the Site (within the top 15 centimeter of soil) were recorded for radium, which was measured in excess of 260 picocuries per gram of soil (pCi/g), and for uranium species, which were measured at more than 300 pCi/g.

Radiation is a known carcinogen, mutagen and teratogen. Exposure to elevated gamma radiation is known to cause cancer, cataracts, and shorten the life span of affected individuals. As indicated above, elevated radionuclide levels are present in both the soil and waste materials found at the Site. These radionuclides have been found to emit radiation at levels which may present a danger to individuals in the vicinity of the Site. Uranium and several of its decay daughters are alpha emitters. The inhalation of radionuclides that are alpha emitters exposes an affected individual's internal organs to damaging alpha particles. Once ingested, alpha emitters become trapped within the body, and can thereby causes severe organ damage as well as certain genetic defects.

The affected scared mined sites are in close proximity to several families residing on the Brown-Vandever Indian Allotment. Approximately forty people, including children, live within one quarter mile of Section 19 and 13. Presently, the land is primarily utilized as grazing land for local sheep, goats and horses. Currently, there are no restrictions or barriers to prevent the local population or livestock from gaining access to the abandoned mine areas and mining wastes. Without significant actions similar to those taken by EPA on Sections 18 and 24, EPA believes that the local population will continue to be exposed to potentially hazardous doses of gamma radiation and potentially hazardous concentrations of radionuclides.

(3) EPA has conducted several detailed gamma radiation surveys using a 50 foot by 50 foot grid on the affected mine sites using proper scientific procedures. From these surveys and analytical data, EPA has determined that the area has been adversely impacted by past activities. EPA's field data is reproducible and we are willing to meet you in the field to conduct comparisons.

EPA agrees that ground measurement readings are difficult to reproduce. However, the waist level measurements, as noted above, exceed background levels by as much as a factor of 50.

(4) Your calculation's methodology used in Item 7 needs clarification. EPA questions the origin of the term "90,000 rem/yr." EPA's risk assessment and action level are based on current Federal guidelines and exposure estimates developed by EPA, and in concurrence with the Navajo Superfund Organization.

(5) Concerning your statement regarding Mr. Vandever, EPA's determination to conduct a response action at the Site is based upon its findings of facts combined with scientific risk estimates.

EPA hopes that you will cooperate with us and the United States Department of Energy on this matter. If you have any questions or concerns, please contact me at 415-744-2298. Legal concerns should be addressed to Linda Wandres, Assistant Regional Counsel, at 415-744-1359.

Sincerely,

Robert Bornstein

Robert Bornstein
On-Scene-Coordinator
Emergency Response Section

cc: Terry Brubaker, Section Chief
Linda Wandres, ORC
Bob Ivey, DOE
Joanne Manygoats, Navajo Superfund Program